

NEW AND INTERESTING RECORDS OF ADVENTIVE PLANTS FROM THE AUCKLAND INSTITUTE AND MUSEUM HERBARIUM 1

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Abstract. Some recent additions to the Auckland Institute and Museum Herbarium (AK) and re-identification of earlier gatherings, provide information on the distribution of adventive species.

The following list of records from the Auckland Institute and Museum Herbarium has two main sources; one is from the addition of material, particularly my own collecting and that of the Herbarium staff; the other is from the review of earlier gatherings, which often reveals erroneous or inadequate identification. Records of uncommon species have sometimes to be changed to those of more common ones (as may be seen below in *Lotus angustissimus* and *L. tenuis*), and *vice versa*.

A. J. Healy has already done much, in his many papers, to correct long-standing errors as seen below in *Ranunculus bulbosus* and *Veronica agrestis*. He has also called attention to the existence of segregate species, the distribution of which needs to be followed up, in well known aggregates such as *Nasturtium officinale* and *Aphanes arvensis*.

The nomenclature adopted, except where reference has been made to recent monographs, is that published by New Zealand Weed and Pest Control Society (1969). Specimens are cited by collector's number or, in the absence of these, by the AK Herbarium number.

RANUNCULACEAE

Ranunculus acris L.

North Cape, Tokatoka Point, 1969, J. P. Croxall, AK 128014 as *R. bulbosus* L. According to Healy (1948) it is usually *R. sardous* Crantz with which *R. bulbosus* has been confused in the past. There is no New Zealand specimen of *R. bulbosus* in the Herbarium; *R. sardous* is well represented and *R. acris* by only three other gatherings.

Ranunculus ficaria L. var. *grandiflorus* F. Schultz

Specimens of this ornamental variety of the lesser celandine are from: Waitakere Range, Scenic Drive, 1972, A. E. Orchard 3376; Huapai, 1972, C. Souljé, AK 133974; Auckland Domain, gully, 1974, J. H. Goulding 571 and E. B. Bangerter; Mairangi Bay, roadside ditch, E. B. Bangerter 5177. A garden specimen, Auckland, 1954, P. Hynes, AK 48887, is also in the Herbarium. This variety is much larger in leaf and flower than *R. ficaria* var. *ficaria* (which occurs in New Zealand) and might account for some early mentions in literature of *Caltha palustris* L.

CRUCIFERAE

Arabidopsis thaliana (L.) Heynh.

Mt Albert, garden, 1965, K. Wood, AK 106965, as *Arabis hirsuta* L. Although this species is listed by Thomson (1885) as occurring near Dunedin, it does not appear in other early accounts of adventive plants. According to a note on one of the few gatherings in the Herbarium of Botany Division, DSIR, Christchurch, no specimen has been traced to substantiate the Thomson record. These gatherings are all from the South Island between 1957-1971. No other New Zealand specimen is in the Auckland Herbarium.

Nasturtium microphyllum (Boenn.) Rchb.

Waimea County, Redwood Valley, 1971, C. Souljé, AK 134022, as *N. officinale* R. Br. Healy (1954) gives a number of earlier records for this and the following species.

Nasturtium officinale R. Br.

Recent records from the Auckland Herbarium are: Whangaparaoa, Tindalls Beach, among rocks in stream, 1966, J. H. Goulding 90; Whangarei County, Mokau Bay, wet gully, 1972, A. E. Orchard 3876; Browns Bay, Freyberg Park, ditch, 1973, E. B. Bangarter 5126.

Sisymbrium orientale L.

Auckland, Railway Reclamation, 1919, T. F. Cheeseman, AK 31355, 31360. Four sheets from this locality were under *Diplotaxis muralis* DC., two being correctly named. The other two, cited above, are *S. orientale*. A recent addition is: Browns Bay, laneside near beach, 1974, E. B. Bangarter 5223, the latest gathering otherwise being Palmerston North, waste ground, 1929, H. H. Allan, AK 67852. Allan (1933) gives Thames as a further locality.

GERANIACEAE

Geranium purpureum Vill.

Auckland, Mt Albert, 1970, K. Wood, AK 128556, det. A. E. Esler; Mairangi Bay, side of creek, 1974, E. B. Bangarter 5214. *G. purpureum* differs from *G. robertianum* L. in its yellow pollen, deeply ridged mericarps and petals not exceeding 9 mm. Carolin (1964) gives detailed descriptions of these species.

ROSACEAE

Acaena agnipila Gandoger var. *protenta* Orchard

Tauranga, Omokoroa Point, grassy waste area, 1974, E. B. Bangarter 5210. This is an additional record to those cited by Orchard (1973) in his account of the *A. ovina* complex.

Aphanes arvensis L.

Christchurch, New Brighton, 1947, A. Wall and B. Molesworth, AK 22448 as *Alchemilla* indet. This is additional to records given by Healy (1954), where this species and the following are discussed.

Aphanes microcarpa (Boiss. & Reut.) Rothm.

Nelson, Wairau Valley, Rainbow Station, river flats, 1965, P. Hynes, AK 131280 as *Alchemilla arvensis* (L.) Scop.

PAPILIONACEAE

Lotus angustissimus L.

Two gatherings: Auckland, Huia, 1952, K. Wood AK 29079; Mt Roskill, volcanic cone, 1972, P. Hynes AK 131280, both as *L. tenuis* Waldst. & Kit. There is no New Zealand example of the latter species in the Herbarium.

Vicia disperma DC.

First recorded erroneously as *Lens esculenta* Moench by Cheeseman (1883) as "abundantly naturalised in the Auckland Domain, having doubtless escaped from some garden in the vicinity". His specimens, AK 75815, 71856, 71857 and 75818 are labelled "Auckland Domain" and are undated. Allan (1940) repeats the record adding "still there plentifully in grassland". Healy (1946) corrects the identification and gives Wellington and Upper Hutt as further localities. The Herbarium also includes three sheets: "Auckland Domain, over grass", 1944, B. Molesworth, AK 76139, 76140 as *V. tetrasperma* ? and AK 33789 as *Lens esculenta*. The only addition is a recent one: Auckland Domain, under *Cordyline* beside south entrance to Museum, 1974, J. H. Goulding 589. Miss Goulding informs me that she has not observed the plant elsewhere in the Domain.

SCROPHULARIACEAE

Veronica persica Poir.

Little Barrier Island, 1897-1910, E. M. Smith, AK 118133 det. R. C. Cooper as *V. agrestis* L.; Manawatu, fields & waste places, 1947-8, M. J. Lockie, AK 133641, as *V. agrestis*. These are examples of mis-identification of the annual prostrate species of *Veronica*. Healy (1954) discusses the supposed abundance of *V. agrestis*, which may have been confused often with *V. persica*. There are many gatherings of the latter in the Herbarium but very few *V. agrestis*.

VERBENACEAE

Verbena litoralis H. B. K.

Auckland Domain, beside duckpond, 1973, J. H. Goulding 515 & E. B. Bangerter; Mairangi Bay, alongside drive with tall grasses, E. B. Bangerter 5025. Further critical examination of herbarium material is necessary as it is possible that many specimens at present named *V. officinale* L. may be this species. Perry (1933) gives keys in her account of North American species.

AMARYLLIDACEAE

Leucojum aestivum L.

Mairangi Bay, grassland behind beach, 1974, E. B. Bangerter 5171; Auckland Domain, gully, 1974, J. H. Goulding 582. These two gatherings, which may be garden escapes, comprise the total representation from New Zealand of this species in the Herbarium. *L. aestivum* was first recorded as an adventive by Healy (1958), the earliest gatherings being in 1953. As it flowers in the company of the more common *Allium triquetrum* L. to which it bears a superficial resemblance, it may have been overlooked by earlier recorders.

GRAMINEAE

Echinochloa crus-pavonis (H. B. K.) Schultes

Muriwai Lake, Okaihau, swamp, 1966, P. Hynes, AK 109063 as *E. crus-galli* (L.) Beauv.; Mairangi Bay, roadside, 1973, E. B. Bangerter 5012, both det. P. W. Michael. Of three specimens labelled *Panicum crus-galli* L. in Herb. Cheeseman, AK 98842, Fairdown, near Westport, no date, W. Townson 776, Dr Michael says that two are *E. crus-galli* and the third *E. crus-pavonis*. Townson (1907) includes *P. crus-galli* in his list of naturalised plants of the Westport District. If his specimens are vouchers for the list, a very early record for *E. crus-pavonis* is revealed.

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